

The effects of a first-aid education program for middle school students in a Greek urban area

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Today, many health-related hazards are known to be of multifactorial etiology, and prevention has been proved to be necessary even in early age before unhealthy habits become established [1]. Children have the ability to learn and mimic others' behavior, which allows them to build knowledge, attitudes and behavioral patterns. Some of the factors that mold a child's perceptions on health are family, school and also the so-called 'parallel' school, i.e. social life, experiences and interaction with one's environment [2]. The most effective way of promoting health in schools is through the development of health education programs. Such programs may also promote learning procedures and connect schools to current social reality. These programs aim at modifying students' behavior by enhancing personal responsibility, self-confidence, as well as the students' ability to adopt positive lifestyle choices.

A basic rule for the implementation of health education programs is that schools should be actively involved in and supportive of such programs, that these programs are acceptable to students and teachers, and that any opportunity for further cooperation with parents or the community should be fully maximized.

The aim of the present pilot study was to determine levels of first aid knowledge among middle school students, before and after the educational intervention, and also to develop an education program aiming at attitude modification and knowledge advancement. This study was part of an environmental education program named 'Natural Disasters', which is organized every year by the Ministry of Education. The educational procedure was based on a team-centered system, through which the teams were actively involved, following Kolb's model of experiential learning [3]. The teaching plan was aimed at developing knowledge, attitudes and abilities that enable responsible choices concerning first aid. During the courses, several examples of activities were given, and potential first aid scenarios were discussed. Students were asked to participate in many activities in order to gain experiential learning. Experiential learning has proven to be more efficient than the classical learning of subjects and abilities, as students through practice and personal experience gradually learn the material [4, 5].

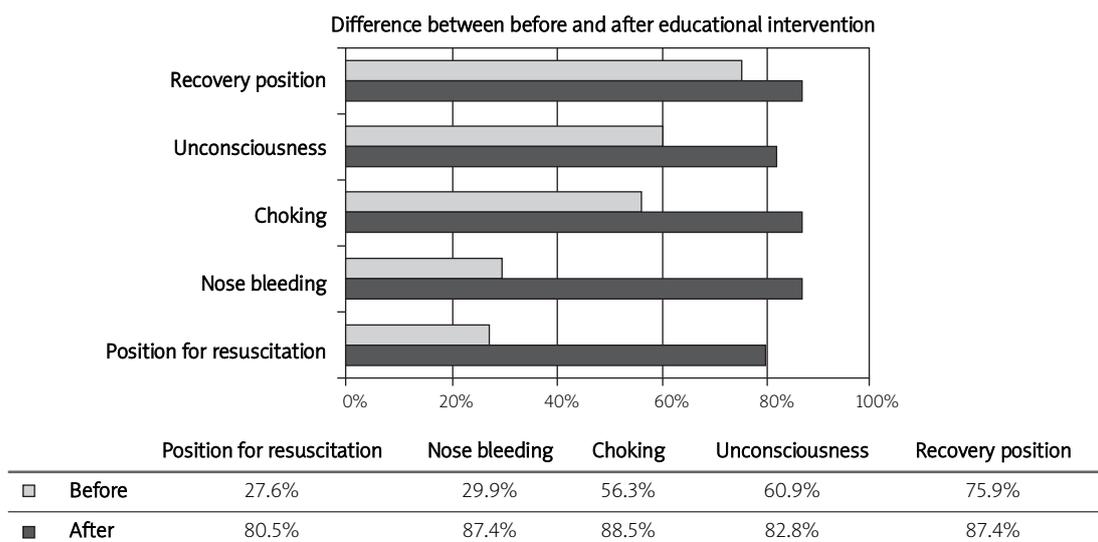


Figure 1. Most noticeable differences before and after educational intervention concerning some first aid situations

Our pilot study involved 87 middle school students in an urban area in Greece, who filled in a questionnaire before and after having experiential learning courses about basic first aid. SPSS 16.0 was used for statistical analysis. There was a statistically significant difference between before and after the educational intervention concerning the following questions: position for resuscitation (27.6% vs. 80.5%), nose bleeding (29.9% vs. 87.4%), choking (56.3% vs. 88.5%), unconsciousness (60.9% vs. 82.8%), recovery position (75.9% vs. 87.4%), trauma (77% vs. 89.7%) and self-protection when giving first aid (78.2% vs. 94.3%). There was no significant statistical difference between questions concerning burns (92% vs. 94.3%) and electric shocks (81.6% vs. 89.7%). There was an important but not big enough statistical difference about the ‘clearing the airway’ question (29.9% vs. 52.9%) (Figure 1).

This pilot study showed that middle school students lack basic knowledge of first aid. First aid education is not integrated in the school curriculum, and it is usually up to the individual teacher whether or not to teach first aid. The most common way students learn something about first aid is via non-profit and non-governmental organizations, various associations and private initiative. Students showed great interest in our program, participating actively, asking questions and clarifying many vague impressions they had from the occasional first aid bits and pieces.

The results of similar studies carried out in Europe and the U.S.A. emphasize the importance of developing basic knowledge in the field of first aid not only for students but for the general population as well, and also the value of proper learning based on international science-based guidelines [6, 7].

In spite of the fact that the program has boosted students’ knowledge, the need for further use of the experiential teaching method is obvious. Teenagers should know how to deal with possible health risks and be able to provide basic help to anyone who needs it [7, 8].

International experience has shown that full implementation of health education programs has had some valuable effects, such as: better quality of life for students and families; the social role of schools becomes enhanced; health-related problems are highlighted and explained; students learn how to protect themselves against health risks; in the long run, hospital treatment costs will be reduced; and, finally, local communities get to use available resources and rouse people to get involved. Furthermore, it has been established that the effectiveness of health education programs depends on the teachers’ cooperation and also on the contribution of other international organizations (e.g. WHO, EU) [9, 10].

Besides the significant advantages for the students’ health and attitudes, teaching first aid in middle schools will allow students to master the scientific way of thinking and making decisions, and to form new-found attitudes favoring humanistic values; teaching first aid will also make them able to offer help, and build mental and social skills necessary for every modern civilized person. Health and Environmental Education programs have been shown to be highly effective and therefore the use and implementation of such programs should be expanded accordingly.

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